

## **OA 3.2      *Office Automation Functional Requirements***

The office automation functional area currently contains five sub components: Word Processing, Electronic Mail, Presentation Graphics, Spreadsheet, and Drawing/Illustration. It is possible that a single package may support more than one sub component. The following sections set forth requirements for each of the five sub-components, however, global requirements, which all office automation products must adhere to, have been gathered into a global functional requirements section with specific functional requirements for each office automation package to follow.

### **OA 3.2.1      *Global Functional Requirements***

The following section contains global functional requirements for all office automation products in the DII COE.

3.2.1.1 The office automation software shall be capable of operating in a WYSIWYG mode.

Traceability:  
Priority 1

3.2.1.2 The office automation software shall meet the guidelines set forth in the DII Style Guide. The DII COE Style Guide provides a common framework for human computer interface design and implementation, defining the long-term functional goals, objectives and requirements of the human computer interface.

Traceability:  
Priority 1

3.2.1.3 The office automation software shall comply with the Inter-Client Communications Conventions Manual (ICCCM).

Traceability:  
Priority 1

3.2.1.4 The office automation software shall comply with POSIX 1003.1.

Traceability:  
Priority 1

3.2.1.5 The office automation software shall provide context-sensitive on-line help.

Traceability:  
Priority 1

3.2.1.6 The office automation software shall allow the arbitrary placement of software on clients and/or servers without impact to the user.

Traceability:  
Priority 1

3.2.1.7 The office automation software shall allow the administrator to specify path and directory information for software installation.

Traceability:  
Priority 1

3.2.1.8 The office automation software shall not remap function keys, color maps, or any other shared resources in a way that prevents other applications from running correctly.

Traceability:  
Priority 1

3.2.1.9 The office automation software shall support PostScript Level 2 page description language for printing and shall allow the user to generate PostScript Level 2 files.

Traceability:  
Priority 1

3.2.1.10 The office automation software shall provide spell checking with the capability to add user-defined words.

Traceability:  
Priority 1

## **OA 3.2.2 Word Processing**

The following section contains functional requirements for word processing office automation products in the DII COE.

3.2.2.1 The Word Processing software shall support the import and export of documents in the following formats for exchange of legacy data. It is the intent to move to one standard format for document exchange, however, for migration purposes, multiple file formats must be supported.

a. ASCII Text

Traceability:  
Priority 1

b. Word Perfect V6.0

Traceability:  
Priority 1

c. Microsoft Word V2.0 and V6.0

Traceability:  
Priority 1

d. Interchange Format (RTF)

Traceability:  
Priority 1

e. Lotus WKS/WK1/WK3

Traceability:  
Priority 1

f. Standard General Markup Language (SGML)

Traceability:  
Priority 1

g. Hyper Text Markup Language (HTML)

Traceability:  
Priority 1

h. Encapsulated PostScript (EPS)

Traceability:  
Priority 1

3.2.2.2 The Word Processing software shall support the import of graphics in the following formats:

a. Computer Graphics Metafile (CGM)

Traceability:  
Priority 1

b. Tagged Image File Format (TIFF) R and G

Traceability:  
Priority 1

- c. Encapsulated PostScript (EPS)  
Traceability:  
Priority 1
  - d. Graphics Interchange Format (GIF)  
Traceability:  
Priority 1
  - e. Portable Bitmap (PBM)  
Traceability:  
Priority 1
  - f. PC Paintbrush (PCX)  
Traceability:  
Priority 1
- 3.2.2.3 The Word Processing software shall provide for the import of text and graphic files to be incorporated in a document by reference or copied into the document.  
Traceability:  
Priority 1
- 3.2.2.4 The Word Processor software shall support the message generation requirements of DII Message Processing System text processing subsystem for generation of free text messages.  
Traceability:  
Priority 1
- 3.2.2.5 The Word Processing software shall support at least 158 columns per line, 250 lines per page, and 500 pages per document.  
Traceability:  
Priority 1
- 3.2.2.6 The Word Processing software shall allow the user to specify page length and page width and set page orientation (landscape or portrait).  
Traceability:  
Priority 1
- 3.2.2.7 The Word Processing software shall allow automatic numbering of chapters, sections, subsections, and paragraphs using a user-selected numbering system.  
Traceability:  
Priority 1
- 3.2.2.8 The Word Processing software shall allow automatic page numbering with options for all pages, a defined range of pages, and numbering to begin on any page.  
Traceability:  
Priority 1
- 3.2.2.9 The Word Processing software shall allow user-specified page numbering and several page numbering styles (e.g., roman, standard, appendix).  
Traceability:  
Priority 1
- 3.2.2.10 The Word Processing software shall provide for the automatic creation of a table of contents and index.  
Traceability:  
Priority 1

3.2.2.11 The Word Processing software shall allow the user to set columns (newspaper and parallel formats), set tabs, change fonts (typefaces), indent text, specify line spacing (single, double, etc.), set margins (left, right, top, and bottom), and insert page breaks.

Traceability:  
Priority 1

3.2.2.12 The Word Processing software shall allow the user to create figure boxes, text boxes, table boxes, graphics boxes and horizontal and vertical line drawing.

Traceability:  
Priority 1

3.2.2.13 The Word Processing software shall allow the user to use and change text justification (left, right, center, and full).

Traceability:  
Priority 1

3.2.2.14 The Word Processing software shall provide on-screen text formatting with automatic text realignment.

Traceability:  
Priority 1

3.2.2.15 The Word Processing software shall allow the user to indent blocks of text from both the left and right margins without changing the document margins.

Traceability:  
Priority 1

3.2.2.16 The Word Processing software shall provide automatic carriage return and cursor wraparound for both column and full width modes.

Traceability:  
Priority 1

3.2.2.17 The Word Processing software shall allow the user to override page break placement.

Traceability:  
Priority 1

3.2.2.18 The Word Processing software shall allow the user to mark a block of text to move, copy, repeat copy without remarking, or delete.

Traceability:  
Priority 1

3.2.2.19 The Word Processing software shall allow the user to mark a block of text (in order to narrow the scope of text formatting, spell checking, and calculation functions) to affect only the area marked by block of text.

Traceability:  
Priority 1

3.2.2.20 The Word Processing software shall allow the user to delete text by character, word, line, remainder of line, or user-defined block.

Traceability:  
Priority 1

3.2.2.21 The Word Processing software shall allow the user to insert an imported document or data file at the location of the cursor.

Traceability:  
Priority 1

- 3.2.2.22 The Word Processing software shall provide boldface and italics.  
Traceability:  
Priority 1
- 3.2.2.23 The Word Processing software shall provide subscripts and superscripts.  
Traceability:  
Priority 1
- 3.2.2.24 The Word Processing software shall allow the user to convert the case of selected text.  
Traceability:  
Priority 1
- 3.2.2.25 The Word Processing software shall allow the user to underline words only, and words and spaces as an unbroken line.  
Traceability:  
Priority 1
- 3.2.2.26 The Word Processing software shall allow the user to define, save, and reuse, in subsequent editing sessions, multiple page formats within a document (e.g., margins; tabs; ruler; page, paragraph, columns, headers, footers, page and line numbering; footnotes, end notes).  
Traceability:  
Priority 1
- 3.2.2.27 The Word Processing software shall allow multiple users to open multiple copies of the same or different documents concurrently.  
Traceability:  
Priority 1
- 3.2.2.28 The Word Processing software shall provide a ruler.  
Traceability:  
Priority 1
- 3.2.2.29 The Word Processing software shall provide a status line and menus.  
Traceability:  
Priority 1
- 3.2.2.30 The Word Processing software shall provide macro record and playback facilities to support repeated entry of keystroke combinations, including function keys.  
Traceability:  
Priority 1
- 3.2.2.31 The Word Processing software shall provide automatic timed backups to storage media at a user-defined interval.  
Traceability:  
Priority 1
- 3.2.2.32 The Word Processing software shall allow the user to undo at least the last change.  
Traceability:  
Priority 1
- 3.2.2.33 The Word Processing software shall allow the user to abort an editing session and revert to the original document while disregarding all changes made during the session.  
Traceability:  
Priority 1

3.2.2.34 The Word Processing software shall allow movement between two documents (including the same document in two separate windows) using up to a full screen display for each document for two or more concurrently active (open) documents.

Traceability:  
Priority 1

3.2.2.35 The Word Processing software shall allow the user to perform all the capabilities outlined in this document for one active document should two or more documents be concurrently open.

Traceability:  
Priority 1

3.2.2.36 The Word Processing software shall allow the user to move the cursor left, right, up, and down swing keyboard arrow keys and shall allow the user to move the cursor directly to the first or last character in a line.

Traceability:  
Priority 1

3.2.2.37 The Word Processing software shall allow cursor movement to the next screen of text which shall include the last one to four lines of text from the previous screen.

Traceability:  
Priority 1

3.2.2.38 The Word Processing software shall allow cursor movement to the previous screen of text which shall include the first one to four lines of text from the following screen.

Traceability:  
Priority 1

3.2.2.39 The Word Processing software shall allow the user to move the cursor directly to the previous or next page of text.

Traceability:  
Priority 1

3.2.2.40 The Word Processing software shall allow the user to move the cursor directly to a user-selected page number.

Traceability:  
Priority 1

3.2.2.41 The Word Processing software shall allow the user to move the cursor directly to the first character of the document (top) or to the end of the document.

Traceability:  
Priority 1

3.2.2.42 The Word Processing software shall allow the user to move the cursor directly to the beginning or end of the screen.

Traceability:  
Priority 1

3.2.2.43 The Word Processing software shall allow the user to scroll the text vertically one line at a time, up and down.

Traceability:  
Priority 1

3.2.2.44 The Word Processing software shall allow the user to scroll the text horizontally, left and right, to a width of at least 158 characters.

Traceability:  
Priority 1

3.2.2.45 The Word Processing software shall allow the user to perform search and search-and-replace functions within user-defined ranges, or globally throughout the document.

Traceability:  
Priority 1

3.2.2.46 The Word Processing software shall permit search functions on occurrences of user-specified character strings (ASCII characters including carriage returns, control codes(e.g., bold, margin, tabs, etc.), and/or keyboard-generated characters).

Traceability:  
Priority 1

3.2.2.47 The Word Processing software shall provide the capability for the automatic numbering and placement of footnotes and endnotes throughout the document with endnote consolidation at the end of document.

Traceability:  
Priority 1

3.2.2.48 The Word Processing software shall allow the user to associate footnotes and endnotes with the appropriate text so reformatting, adding, or deleting text does not cause the note to be relocated.

Traceability:  
Priority 1

3.2.2.49 The Word Processing software shall allow the user to:

- a. place header and footer text at the top and bottom of each page of a document.

Traceability:  
Priority 1

- b. place a minimum off our lines of header/footer text at the top and bottom of each page of a document.

Traceability:  
Priority 1

- c. place header and footer text from a designated page of a document to the end of the document.

Traceability:  
Priority 1

- d. maintain headers and footers on all pages or alternating pages of a document until another header or footer is entered by the user.

Traceability:  
Priority 1

- e. alternate between header and footer formats for odd and even pages.

Traceability:  
Priority 1

- f. prevent changes to the body of a document from affecting the headers and footers and, conversely, prevent changes to headers and footers from affecting the body of a document.

Traceability:  
Priority 1

- g. automatically generate page numbers inside headers and footers.

Traceability:  
Priority 1

3.2.2.50 The Word Processing software shall provide the capability for automatic alignment of vertical columns.

Traceability:  
Priority 1

3.2.2.51 The Word Processing software shall allow the user to format text within columns without affecting column parameters.

Traceability:  
Priority 1

3.2.2.52 The Word Processing software shall provide the capability for alignment of columns of decimal figures on the decimal point.

Traceability:  
Priority 1

3.2.2.53 The Word Processing software shall allow the user to change the number of copies to be printed.

Traceability:  
Priority 1

3.2.2.54 The Word Processing software shall allow the user to print all pages, selected pages, or marked pages of a document.

Traceability:  
Priority 1

3.2.2.55 The Word Processing software shall permit the user to select manual or continuous paper feeding.

Traceability:  
Priority 1

3.2.2.56 The Word Processing software shall allow the user to change between draft and letter quality print selection.

Traceability:  
Priority 1

3.2.2.57 The Word Processing software shall allow the user to select between logical print devices.

Traceability:  
Priority 1

3.2.2.58 The Word Processing software shall allow the user to select print job management (e.g., cancel, rush, display progress).

Traceability:  
Priority 1

3.2.2.59 The Word Processing software shall provide support for both fixed and scaleable type fonts to include scaling of point size and characters per inch.

Traceability:  
Priority 1

3.2.2.60 The Word Processing software shall provide a document print preview.

Traceability:  
Priority 1

3.2.2.61 The Word Processing software shall provide an on-line thesaurus.

Traceability:  
Priority 1

3.2.2.62 The Word Processing software shall provide document style guides or templates.

Traceability:  
Priority 1



3.2.2.63 The Word Processing software shall provide an outliner.

Traceability:  
Priority 1

3.2.2.64 The Word Processing software shall provide a label generation capability.

Traceability:  
Priority 1

3.2.2.65 The Word Processing software shall allow the user to create, move, rename, and delete user-specified documents and document directories from a menu (i.e., file management).

Traceability:  
Priority 1

3.2.2.66 The Word Processing software shall provide a document markup capability including redline and strikeout.

Traceability:  
Priority 1

3.2.2.67 The Word Processing software shall provide hot keys for the more repetitive functions.

Traceability:  
Priority 1

3.2.2.68 The Word Processing software shall provide widow and orphan line protection.

Traceability:  
Priority 1

3.2.2.69 The Word Processing software shall provide automatic hyphenation at the end of a line.

Traceability:  
Priority 1

3.2.2.70 The Word Processing software shall allow the user to incorporate mathematical/scientific symbols and foreign character sets (e.g., Greek, Hebrew, Cyrillic, German, French, Russian).

Traceability:  
Priority 1

3.2.2.71 The Word Processing software shall allow sorting selected text within a table by paragraph and line.

Traceability:  
Priority 1

3.2.2.72 The Word Processing software shall allow the user to reposition and scale graphics once they are in the document.

Traceability:  
Priority 1

### **OA 3.2.3 Electronic Mail**

The following section contains functional requirements for electronic mail office automation products in the DII COE.

3.2.3.1 The Electronic Mail software shall comply with the following standards:

a. Simple Mail Transport Protocol (SMTP)

Traceability:  
Priority 1

b. International Consultative Committee on Telegraphy and Telephone (CCITT) X.400 (or written migration plan to CCITT X.400)

Traceability:  
Priority 1

c. Multipurpose Internet Mail Extensions (MIME)-RFC 1341

Traceability:  
Priority 1

3.2.3.2 The Electronic Mail software shall be compatible with and interoperate with the DII Message Processing System for message distribution and introduction of messages to be released.

Traceability:  
Priority 1

3.2.3.3 The Electronic Mail software shall provide the capability to create, send, answer and route messages.

Traceability:  
Priority 1

3.2.3.4 The Electronic Mail software shall provide the capability to save a message in a defined storage location for later retrieval.

Traceability:  
Priority 1

3.2.3.5 The Electronic Mail software shall provide the capability to save an in-progress message for later editing and sending.

Traceability:  
Priority 1

3.2.3.6 The Electronic Mail software shall have folder-oriented file system access available within the application software.

Traceability:  
Priority 1

3.2.3.7 The Electronic Mail software shall provide the following fields in each mail message: addressees, copy recipients, subject, message body, originator, time sent, date sent.

Traceability:  
Priority 1

3.2.3.8 The Electronic Mail software shall be able to attach multiple text and binary enclosures to mail messages.

Traceability:  
Priority 1

3.2.3.9 The Electronic Mail software shall be able to import ASCII text into the body of a message.

Traceability:  
Priority 1

3.2.3.10 The Electronic Mail software shall provide the option for the sender to obtain a receipt when a message is delivered to or viewed by each recipient.

Traceability:  
Priority 1

3.2.3.11 The Electronic Mail software shall provide the capability to create, add, delete, and modify private distribution lists.

Traceability:  
Priority 1

3.2.3.12 The Electronic Mail software shall be able to announce mail deliveries while the user is active in another application.

Traceability:  
Priority 1

3.2.3.13 The Electronic Mail software shall provide group accounts so more than one user can access the account simultaneously.

Traceability:  
Priority 1

3.2.3.14 The Electronic Mail software shall provide the capability to access both personal and group accounts from a single user ID.

Traceability:  
Priority 1

3.2.3.15 The Electronic Mail software shall allow the user to print a message.

Traceability:  
Priority 1

3.2.3.16 The Electronic Mail software shall provide a message in-box window with the following information: originator, subject, date sent, and time sent.

Traceability:  
Priority 1

3.2.3.17 The Electronic Mail software shall provide the ability to save enclosures with mail files.

Traceability:  
Priority 1

3.2.3.18 The Electronic Mail software shall provide the capability to detach and store enclosures as separate files.

Traceability:  
Priority 1

3.2.3.19 The Electronic Mail software shall be able to store mail on centralized mail servers.

Traceability:  
Priority 1

3.2.3.20 The Electronic Mail software shall provide the capability for a user to save messages and enclosures external to the mail system.

Traceability:  
Priority 1

3.2.3.21 The Electronic Mail software shall provide the capability to create and maintain a centralized list of mail addressees to include addressees from external mail domains(global list).

Traceability:  
Priority 1

3.2.3.22 The Electronic Mail software shall provide a search feature for the global list based on a username.

Traceability:  
Priority 1

3.2.3.23 The Electronic Mail software shall provide an API (Application Programming Interface) with editing and debugging support.

Traceability:  
Priority 1

3.2.3.24 The Electronic Mail software shall provide the capability for users to forward their mail-boxes to another account.

Traceability:  
Priority 1

3.2.3.25 The Electronic Mail software shall provide a user-definable notification to a sender that the user is unavailable to review mail.

Traceability:  
Priority 1

3.2.3.26 The Electronic Mail software shall provide the user with an option to save a message to a mail folder when it is sent.

Traceability:  
Priority 1

3.2.3.27 The Electronic Mail software shall provide the capability to sort and search mail folders for the priority of message, sender name, subject, viewed status (new, unread, read, deleted), and date.

Traceability:  
Priority 1

3.2.3.28 The Electronic Mail software shall be able to facilitate viewing enclosures by starting the appropriate application (e.g., word processor, spreadsheet).

Traceability:  
Priority 1

3.2.3.29 The Electronic Mail software shall provide the capability to have aliases for users.

Traceability:  
Priority 1

3.2.3.30 The Electronic Mail software shall be able to support a macro language within the application.

Traceability:  
Priority 1

3.2.3.31 The Electronic Mail software shall provide the system administrator with the capability to suspend the ability of a user to send messages.

Traceability:  
Priority 1

3.2.3.32 The Electronic Mail software shall be able to support the coordination of memos and documents.

Traceability:  
Priority 1

3.2.3.33 The Electronic Mail software shall allow the user to prepare a document for editing and release by another person.

Traceability:  
Priority 1

3.2.3.34 The Electronic Mail software shall provide the capability to archive and retrieve all messages sent.

Traceability:  
Priority 1

3.2.3.35 The Electronic Mail software shall provide the capability to support the following profile-based electronic mail requirements. A profile defines a set of system functions or capabilities which are needed by the user to perform his/her functional activity, e.g., Watch Officer. A user may possess one or more profiles and may have one or more of these profiles active during the user's login session. The profile may require that the user assuming that profile be able to create, send, receive and reply to electronic mail addressed to that profile.

Traceability:  
Priority 1

- 3.2.3.35.1 The Electronic Mail software shall provide the capability when creating an E-mail message to select the originator's address to be one of the user's active profile(s).  
Traceability:  
Priority 1
- 3.2.3.35.2 The Electronic Mail software shall provide the capability to address E-mail messages to a profile.  
Traceability:  
Priority 1
- 3.2.3.35.3 The Electronic Mail software shall provide the capability to route E-mail messages to a profile  
Traceability:  
Priority 1
- 3.2.3.35.4 The Electronic Mail software shall provide a search feature for the global list based on a profile name.  
Traceability:  
Priority 1
- 3.2.3.35.5 The Electronic Mail software shall provide the capability when replying to a profile-based E-mail message to have the default return address be the profile for which the message was received.  
Traceability:  
Priority 1
- 3.2.3.35.6 The Electronic Mail software shall provide the capability to read profile-based E-mail messages received by users active in that profile.  
Traceability:  
Priority 1
- 3.2.3.35.7 The Electronic Mail software shall provide the capability to notify a user upon receipt of a profile-based E-mail messages by users active in that profile.  
Traceability:  
Priority 1
- 3.2.3.36 The Electronic Mail software shall provide the capability to send E-mail to multiple addresses to include users, mail lists, mail aliases and profiles.  
Traceability:  
Priority 1
- 3.2.3.37 The Electronic Mail software shall provide the capability to route E-mail to multiple addresses to include users, mail lists, mail aliases and profiles.  
Traceability:  
Priority 1
- 3.2.3.38 The Electronic Mail software shall provide the capability to address E-mail messages to any mail address to include an address not available in the global directory .  
Traceability:  
Priority 1
- 3.2.3.39 The Electronic Mail software shall provide the capability to route E-mail messages to any mail address to include an address not available in global directory.  
Traceability:  
Priority 1

#### **OA 3.2.4      Presentation Graphics**

The following section contains functional requirements for presentation graphics office automation products in the DII COE.

3.2.4.1 The Presentation Graphics software shall support the import and export of the following file formats:

- |   |                             |
|---|-----------------------------|
| a.    Computer Graphics Metafile (CGM)        | Traceability:<br>Priority 1 |
| b.    Tagged Image File Format (TIFF) R and G | Traceability:<br>Priority 1 |
| c.    Encapsulated PostScript (EPS)           | Traceability:<br>Priority 1 |
| d.    Graphics Interchange Format (GIF)       | Traceability:<br>Priority 1 |
| e.    Portable Bitmap (PBM)                   | Traceability:<br>Priority 1 |
| f.    PC Paintbrush (PCX)                     | Traceability:<br>Priority 1 |
| g.    ASCII Text                              | Traceability:<br>Priority 1 |

3.2.4.2 The Presentation Graphics software shall support the import of the following file formats:

- |   |                             |
|---|-----------------------------|
| a.    FrameMaker Interchange Format (MIF) | Traceability:<br>Priority 1 |
| b.    Microsoft Paint (MSP)               | Traceability:<br>Priority 1 |
| c.    Lotus (PIC)                         | Traceability:<br>Priority 1 |
| d.    MacPaint (PNTG)                     | Traceability:<br>Priority 1 |
| e.    PowerPoint V3 and V4                | Traceability:<br>Priority 1 |
| f.    WordPerfect Graphics (WPG)          | Traceability:<br>Priority 1 |

- g. Sun Raster
    - Traceability:  
Priority 1
  - h. X-Window Dump (XWD)
    - Traceability:  
Priority 1
  - i. X-Window bitmap (Xbitmap)
    - Traceability:  
Priority 1
  - j. Lotus WKS/WK1/WK3 spreadsheets
    - Traceability:  
Priority 1
- 3.2.4.3 The Presentation Graphics software shall provide symbols for flow charts and maps and a common clip art library.
- Traceability:  
Priority 1
- 3.2.4.4 The Presentation Graphics software shall be able to resize, rescale, flip, or rotate objects from the object libraries.
- Traceability:  
Priority 1
- 3.2.4.5 The Presentation Graphics software shall provide the capability for on-line color changes to any on-screen object.
- Traceability:  
Priority 1
- 3.2.4.6 The Presentation Graphics software shall allow the user to position more than one graphic image on one screen.
- Traceability:  
Priority 1
- 3.2.4.7 The Presentation Graphics software shall provide the capability to generate
- a. pie charts and exploded pie charts in both 2D and 3D directly from data without a human drawing effort
    - Traceability:  
Priority 1
  - b. horizontal, vertical, and stacked vertical bar graphs in both 2D and 3D directly from data without a drawing effort.
    - Traceability:  
Priority 1
  - c. vertical and horizontal line graphs in both 2D and 3D directly from data without a drawing effort.
    - Traceability:  
Priority 1
  - d. scatter plot diagrams in both 2D and 3D directly from data without a drawing effort.
    - Traceability:  
Priority 1
- 3.2.4.8 The Presentation Graphics software shall provide at least
- a. seven distinct colors

Traceability:  
Priority 1

- b. seven distinct line patterns

Traceability:  
Priority 1

- c. seven distinct shading patterns

Traceability:  
Priority 1

3.2.4.9 The Presentation Graphics software shall provide definable color vectors.

Traceability:  
Priority 1

3.2.4.10 The Presentation Graphics software shall provide independent and grouped scaling of objects.

Traceability:  
Priority 1

3.2.4.11 The Presentation Graphics software shall provide the capability to display, snap to and print a graph grid.

Traceability:  
Priority 1

3.2.4.12 The Presentation Graphics software shall provide rulers.

Traceability:  
Priority 1

3.2.4.13 The Presentation Graphics software shall provide user-selectable scales in inches, centimeters, and points for grids and rulers.

Traceability:  
Priority 1

3.2.4.14 The Presentation Graphics software shall allow the user to label the x-axis and y-axis with user-provided horizontal and vertical labels.

Traceability:  
Priority 1

3.2.4.15 The Presentation Graphics software shall permit display and editing in portrait and landscape modes.

Traceability:  
Priority 1

3.2.4.16 The Presentation Graphics software shall provide for flipping and rotation of the x- and y-axis of the display chart or graph.

Traceability:  
Priority 1

3.2.4.17 The Presentation Graphics software shall allow the user to enter at least three header lines of 40 characters each and three footer lines of 40 characters each.

Traceability:  
Priority 1

3.2.4.18 The Presentation Graphics software shall allow automatic page numbering to appear separately from the footer on each graphic image.

Traceability:  
Priority 1



- 3.2.4.19 The Presentation Graphics software shall allow the user to select for each header line and footer line the character size, color, typeface, and justification.  
Traceability:  
Priority 1
- 3.2.4.20 The Presentation Graphics software shall provide the capability for the user to select size and type of scale (linear and logarithmic) and points for grids and rulers.  
Traceability:  
Priority 1
- 3.2.4.21 The Presentation Graphics software shall be able to edit, move, copy, delete, and undelete objects on screen.  
Traceability:  
Priority 1
- 3.2.4.22 The Presentation Graphics software shall provide the capability for the user to store, edit, delete, and retrieve images and their parameters and settings.  
Traceability:  
Priority 1
- 3.2.4.23 The Presentation Graphics software shall provide the capability to print and plot graphs in portrait and landscape modes.  
Traceability:  
Priority 1
- 3.2.4.24 The Presentation Graphics software shall be able to plot to an HPGL4 plotter or plotter that emulates HPGL4.  
Traceability:  
Priority 1
- 3.2.4.25 The Presentation Graphics software shall permit a print preview of the entire page of graphics images on screen.  
Traceability:  
Priority 1
- 3.2.4.26 The Presentation Graphics software shall allow the user to select page length and width, the of number of copies to print, draft- or high-quality printing, color or black and white print output.  
Traceability:  
Priority 1
- 3.2.4.27 The Presentation Graphics software shall allow the user to select and manage printers.  
Traceability:  
Priority 1
- 3.2.4.28 The Presentation Graphics software shall provide the capability to present the same data in different chart formats without rekeying the data.  
Traceability:  
Priority 1
- 3.2.4.29 The Presentation Graphics software shall provide the capability to delete individual objects or object groups selectively without having to recreate the entire display.  
Traceability:  
Priority 1
- 3.2.4.30 The Presentation Graphics software shall provide slide show and slide manager capabilities.  
Traceability:  
Priority 1

3.2.4.31 The Presentation Graphics software shall provide the capability to add text and special characters in selectable typefaces in point sizes from 8 to 48 points.

Traceability:  
Priority 1

3.2.4.32 The Presentation Graphics software shall draw lines (including freehand), rectangles, arcs, circles, ellipses, and polygons in continuously variable styles and positions.

Traceability:  
Priority 1

3.2.4.33 The Presentation Graphics software shall provide the capability to resize, rescale, and flip objects vertically or horizontally.

Traceability:  
Priority 1

3.2.4.34 The Presentation Graphics software shall permit alignment of objects and text vertically or horizontally.

Traceability:  
Priority 1

3.2.4.35 The Presentation Graphics software shall provide the capability for batch printing of multiple slides and graphics files.

Traceability:  
Priority 1

3.2.4.36 The Presentation Graphics software shall provide line styles options for thickness and arrowheads.

Traceability:  
Priority 1

3.2.4.37 The Presentation Graphics software shall provide for cross-hatch patterns, foreground color, and background color.

Traceability:  
Priority 1

3.2.4.38 The Presentation Graphics software shall provide at least seven different color fill options for both foreground and background.

Traceability:  
Priority 1

3.2.4.39 The Presentation Graphics software shall provide text style options for bold, italic, underline, justification, special characters, and borders and grid options.

Traceability:  
Priority 1

3.2.4.40 The Presentation Graphics software shall provide a pixel editor.

Traceability:  
Priority 1

3.2.4.41 The Presentation Graphics software shall be able to group and ungroup selected objects into other temporary objects.

Traceability:  
Priority 1

3.2.4.42 The Presentation Graphics software shall provide the capability to input digitized data.

Traceability:  
Priority 1

3.2.4.43 The Presentation Graphics software shall provide the capability to select an object, select multiple objects and select all objects and deselect all objects.

Traceability:  
Priority 1

3.2.4.44 The Presentation Graphics software shall provide the capability for the select function to cycle through objects.

Traceability:  
Priority 1

3.2.4.45 The Presentation Graphics software shall provide the capability for adding or removing objects from currently selected groups.

Traceability:  
Priority 1

3.2.4.46 The Presentation Graphics software shall provide the capability for selecting interior or exterior objects.

Traceability:  
Priority 1

3.2.4.47 The Presentation Graphics software shall be able to change the displayed order of overlapping objects (front to back) by moving the object to the front or back or in either direction one object at a time.

Traceability:  
Priority 1

3.2.4.48 The Presentation Graphics software shall provide the capability for the user to be able to zoom in and out repetitively.

Traceability:  
Priority 1

3.2.4.49 The Presentation Graphics software shall allow the user to scroll through the zoomed graphic.

Traceability:  
Priority 1

3.2.4.50 The Presentation Graphics software shall enable the user to rearrange objects through rotation(0 degrees through 360 degrees).

Traceability:  
Priority 1

3.2.4.51 The Presentation Graphics software shall enable the user to set priority for background and foreground.

Traceability:  
Priority 1

3.2.4.52 The Presentation Graphics software shall enable the user to rearrange objects through an alignment function (left, right, horizontal, vertical, top, bottom, and center).

Traceability:  
Priority 1

3.2.4.53 The Presentation Graphics software shall be able to edit object and text size and color.

Traceability:  
Priority 1

3.2.4.54 The Presentation Graphics software shall be able to fill objects with user-selectable patterns.

Traceability:  
Priority 1

3.2.4.55 The Presentation Graphics software shall be able to modify line thickness, style, and weight.

Traceability:  
Priority 1

3.2.4.56 The Presentation Graphics software shall be able to edit text, special characters, text point size and images.

Traceability:  
Priority 1

3.2.4.57 The Presentation Graphics software shall provide a screen refresh capability.

Traceability:  
Priority 1

### **OA 3.2.5      Spreadsheet**

The following section contains functional requirements for spreadsheet office automation products in the DII COE.

3.2.5.1 The Spreadsheet software shall provide business graphics to include pie charts, line graphs, and vertical and horizontal bar graphs.

Traceability:  
Priority 1

3.2.5.2 The Spreadsheet software shall provide at least 1000 rows and 256 columns.

Traceability:  
Priority 1

3.2.5.3 The Spreadsheet software shall display the currently selected row and column position.

Traceability:  
Priority 1

3.2.5.4 The Spreadsheet software shall be able to use relative and absolute references to other cells.

Traceability:  
Priority 1

3.2.5.5 The Spreadsheet software shall be able to name a specified range of cells and to view, reference, erase, copy, and move the range by referring to the range name.

Traceability:  
Priority 1

3.2.5.6 The Spreadsheet software shall be able to protect specific cells and groups of cells from global commands.

Traceability:  
Priority 1

3.2.5.7 The Spreadsheet software shall be able to protect data from editing by cell, row, column, range of cells, as well as the whole spreadsheet with the ability to enable and disable edit protection.

Traceability:  
Priority 1

3.2.5.8 The Spreadsheet software shall be able to adjust column width from the default value to the maximum width of the spreadsheet.

Traceability:  
Priority 1

3.2.5.9 The Spreadsheet software shall permit display of text in excess of cell length when such display would not obscure other data.

Traceability:  
Priority 1

3.2.5.10 The Spreadsheet software shall be able to select and display the current date in several user-selectable formats.

Traceability:  
Priority 1

3.2.5.11 The Spreadsheet software shall support a macro programming language.

Traceability:  
Priority 1

3.2.5.12 The Spreadsheet software shall be able to record a series of commands as a macro for subsequent editing and execution by a single command or function.

Traceability:  
Priority 1

3.2.5.13 The Spreadsheet software shall allow a user to insert a pause in a macro command file for text entry while the macro is running.

Traceability:  
Priority 1

3.2.5.14 The Spreadsheet software shall be able to retrieve a spreadsheet file and insert it into the one currently in use.

Traceability:  
Priority 1

3.2.5.15 The Spreadsheet software shall be able to retrieve a spreadsheet file and overwrite the one currently in use.

Traceability:  
Priority 1

3.2.5.16 The Spreadsheet software shall be able to save part or all of a spreadsheet as a separate file without altering the original file.

Traceability:  
Priority 1

3.2.5.17 The Spreadsheet software shall permit the user to select an alternate default directory for spreadsheet file storage.

Traceability:  
Priority 1

3.2.5.18 The Spreadsheet software shall permit the user to display a list of all spreadsheet files in a directory.

Traceability:  
Priority 1

3.2.5.19 The Spreadsheet software shall be able to display and print a graph.

Traceability:  
Priority 1

3.2.5.20 The Spreadsheet software shall be able to print the spreadsheet in portrait and landscape orientation in continuous or manual feed modes.

Traceability:  
Priority 1

- 3.2.5.21 The Spreadsheet software shall provide variable typefaces and point sizes.  
Traceability:  
Priority 1
- 3.2.5.22 The Spreadsheet software shall provide user-selectable typeface enhancements to include bold, italics, and underline.  
Traceability:  
Priority 1
- 3.2.5.23 The Spreadsheet software shall permit user-defined page headers and footers.  
Traceability:  
Priority 1
- 3.2.5.24 The Spreadsheet software shall allow the user to set margins.  
Traceability:  
Priority 1
- 3.2.5.25 The Spreadsheet software shall permit the user to adjust the following output parameters: cell range, page range, line spacing, and color or black and white printing.  
Traceability:  
Priority 1
- 3.2.5.26 The Spreadsheet software shall permit the user to select from the following numeric data formats: currency, scientific, integer, negative, percent, dates, and text.  
Traceability:  
Priority 1
- 3.2.5.27 The Spreadsheet software shall permit the user to select the number of digits displayed after the decimal point.  
Traceability:  
Priority 1
- 3.2.5.28 The Spreadsheet software shall be able to scroll horizontally and vertically by line, page, and screen.  
Traceability:  
Priority 1
- 3.2.5.29 The Spreadsheet software shall be able to lock and unlock row and column headings while scrolling data.  
Traceability:  
Priority 1
- 3.2.5.30 The Spreadsheet software shall be able to modify, copy, and delete spreadsheet data and spreadsheet structure separately.  
Traceability:  
Priority 1
- 3.2.5.31 The Spreadsheet software shall perform mathematical operations on integer and real numbers to include addition, subtraction, multiplication, division, integer function (convert real number to an integer), absolute value calculations, rounding, and combinations of the above.  
Traceability:  
Priority 1
- 3.2.5.32 The Spreadsheet software shall perform string operations to include concatenation, sub-string, trim leading and trailing spaces, convert to upper and lower case, convert a string to a value, and convert a value to a string.  
Traceability:  
Priority 1

3.2.5.33 The Spreadsheet software shall perform mathematical operations to include logarithmic function, exponentiation, trigonometric functions, modulus, reciprocal, square root, summation, and random number selection.

Traceability:  
Priority 1

3.2.5.34 The Spreadsheet software shall perform statistical operations to include linear regression, variance, standard deviation, mean, median, average, sum, minimum, maximum, and count.

Traceability:  
Priority 1

3.2.5.35 The Spreadsheet software shall perform relational operations to include greater than, greater than or equal to, less than, less than or equal to, equal to, and not equal to.

Traceability:  
Priority 1

3.2.5.36 The Spreadsheet software shall perform logical operations to include AND, OR, and NOT.

Traceability:  
Priority 1

3.2.5.37 The Spreadsheet software shall perform combinations of arithmetic, relational, and logical operations.

Traceability:  
Priority 1

3.2.5.38 The Spreadsheet software shall provide financial operations to include computing present and future values and depreciation, and calculating amortization tables, rates of return, and annuities.

Traceability:  
Priority 1

3.2.5.39 The Spreadsheet software shall be able to specify how to recalculate the entire spreadsheet: manually or automatically.

Traceability:  
Priority 1

3.2.5.40 The Spreadsheet software shall provide absolute and relative addressing when the user copies or moves data.

Traceability:  
Priority 1

3.2.5.41 The Spreadsheet software shall be able to copy, move, and erase cells, rows, columns, and ranges of cells.

Traceability:  
Priority 1

3.2.5.42 The Spreadsheet software shall permit user-defined justification for values and text to include left, right, or center justified.

Traceability:  
Priority 1

3.2.5.43 The Spreadsheet software shall be able to reformat data by cell, row, column, range of cells, and the whole spreadsheet.

Traceability:  
Priority 1

3.2.5.44 The Spreadsheet software shall be able to insert and delete rows and columns.

Traceability:  
Priority 1

3.2.5.45 The Spreadsheet software shall be able to sort columns and multiple columns containing numbers and text in ascending and descending order using a primary key and a secondary key.

Traceability:  
Priority 1

3.2.5.46 The Spreadsheet software shall be able to import and export data in the following file formats:

a. ASCII Text

Traceability:  
Priority 1

b. Lotus WKS/WK1/WK3 spreadsheets

Traceability:  
Priority 1

c. Microsoft Excel V5.0

Traceability:  
Priority 1

d. Data Interchange Format (DIF)

Traceability:  
Priority 1

3.2.5.47 The Spreadsheet software shall provide an undo function of at least one prior command.

Traceability:  
Priority 1

3.2.5.48 The Spreadsheet software shall be capable of maintaining at least three linked spreadsheets in memory and at least five linked spreadsheets on disk.

Traceability:  
Priority 1

3.2.5.49 The Spreadsheet software shall be able to create more than one report format for a given spreadsheet.

Traceability:  
Priority 1

3.2.5.50 The Spreadsheet software shall be able to enable and disable page numbering for the spreadsheet.

Traceability:  
Priority 1

3.2.5.51 The Spreadsheet software shall be able to calculate the number of occurrences of user-defined values or strings within a user-defined range.

Traceability:  
Priority 1

3.2.5.52 The Spreadsheet software shall be able to store variable-length text strings in individual cells.

Traceability:  
Priority 1

3.2.5.53 The Spreadsheet software shall provide basic database command features.

Traceability:  
Priority 1

3.2.5.54 The Spreadsheet software shall provide basic report generation features.

Traceability:  
Priority 1



3.2.5.55 The Spreadsheet software shall provide display and print formatting options to include line drawing, grid range selection, and cell borders.

Traceability:  
Priority 1

### **OA 3.2.6 Drawing and Illustration**

The following section contains functional requirements for drawing and illustration office automation products in The DII COE.

3.2.6.1 The Drawing/Illustration software shall create new graphics with initial controls for page size, bleed, and target printer resolution user-selectable with a range from 300 to 2540 dpi.

Traceability:  
Priority 1

3.2.6.2 The Drawing/Illustration software shall provide the ability to set unit of measure preference in points, picas, inches, decimal inches, millimeters and centimeters.

Traceability:  
Priority 1

3.2.6.3 The Drawing/Illustration software shall provide the capability to save as a template for subsequent use in creating graphics with similar color, layer, and attribute listings.

Traceability:  
Priority 1

3.2.6.4 The Drawing/Illustration software shall provide the capability to import and export the following file formats:

a. Computer Graphics Metafile (CGM)

Traceability:  
Priority 1

b. Tagged Image File Format (TIFF) R and G

Traceability:  
Priority 1

c. Encapsulated PostScript (EPS)

Traceability:  
Priority 1

d. Graphics Interchange Format (GIF)

Traceability:  
Priority 1

e. Portable Bitmap (PBM)

Traceability:  
Priority 1

f. PC Paintbrush (PCX)

Traceability:  
Priority 1

3.2.6.5 The Drawing/Illustration software shall provide the capability to import the following file formats:

a. FrameMaker Interchange Format (MIF)

Traceability:  
Priority 1

b. Microsoft Paint (MSP)

	Traceability: Priority 1
c. Lotus (PIC)	Traceability: Priority 1
d. MacPaint (PNTG)	Traceability: Priority 1
e. PowerPoint V3 and V4	Traceability: Priority 1
f. WordPerfect Graphics (WPG)	Traceability: Priority 1
g. Sun Raster	Traceability: Priority 1
h. X-Window Dump (XWD)	Traceability: Priority 1
i. X-Window bitmap (Xbitmap)	Traceability: Priority 1
j. Lotus WKS/WK1/WK3 spreadsheets	Traceability: Priority 1
k. International Graphics Exchange Specification (IGES)	Traceability: Priority 1
3.2.6.6 The Drawing/Illustration software shall support the use of the Joint Photographic Experts Group (JPEG) and CCITT Group 3 and 4 recommendations for compression of binary data files.	Traceability: Priority 1
3.2.6.7 The Drawing/Illustration software shall provide mouse-driven tools to create lines.	Traceability: Priority 1
3.2.6.8 The Drawing/Illustration software shall provide mouse-driven tools to create bezier curves, circles, squares, rounded corner squares, square and rounded corner rectangles, ellipses, and open and closed polygons containing up to 1000 editable nodes or points.	Traceability: Priority 1
3.2.6.9 The Drawing/Illustration software shall provide user controls for editing color, stroke, fill, line weight, and x,y position.	Traceability: Priority 1

- 3.2.6.10 The Drawing/Illustration software shall provide the ability to fill any graphic or textual element with solid color/tint, graduated fill, and pattern fill.  
Traceability:  
Priority 1
- 3.2.6.11 The Drawing/Illustration software shall provide the ability to group and ungroup any combination of textual or graphic elements.  
Traceability:  
Priority 1
- 3.2.6.12 The Drawing/Illustration software shall provide the capability to nest grouping of elements up to 25 levels (e.g., groups within a group).  
Traceability:  
Priority 1
- 3.2.6.13 The Drawing/Illustration software shall provide the ability to join and split elements.  
Traceability:  
Priority 1
- 3.2.6.14 The Drawing/Illustration software shall provide controls for vertical and horizontal alignment of any combination of graphic or textual elements with user selection of element edge to be aligned.  
Traceability:  
Priority 1
- 3.2.6.15 The Drawing/Illustration software shall provide controls for vertical and horizontal alignment of any combination of graphic or textual elements with user selection of element center to be aligned.  
Traceability:  
Priority 1
- 3.2.6.16 The Drawing/Illustration software shall provide controls for vertical and horizontal alignment of any combination of graphic or textual elements with user selection of element width and height to be aligned.  
Traceability:  
Priority 1
- 3.2.6.17 The Drawing/Illustration software shall provide controls for equal distribution of any combination of graphic or textual elements to be aligned.  
Traceability:  
Priority 1
- 3.2.6.18 The Drawing/Illustration software shall provide controls for equal distribution of any combination of graphic or textual elements with user selection of element center to be aligned.  
Traceability:  
Priority 1
- 3.2.6.19 The Drawing/Illustration software shall provide controls for equal distribution of any combination of graphic or textual elements with user selection of element width and height to be aligned.  
Traceability:  
Priority 1
- 3.2.6.20 The Drawing/Illustration software shall provide node or point editing capability to include conversion of nodes or groups of nodes to corner type nodes.  
Traceability:  
Priority 1

3.2.6.21 The Drawing/Illustration software shall provide node or point editing capability to include conversion of nodes or groups of nodes to curve type nodes and connector type nodes.

Traceability:  
Priority 1

3.2.6.22 The Drawing/Illustration software shall provide the ability to automatically close or join non-touching or non-closed paths.

Traceability:  
Priority 1

3.2.6.23 The Drawing/Illustration software shall provide the capability to fill and stroke graphic and text elements with user-defined tints and colors.

Traceability:  
Priority 1

3.2.6.24 The Drawing/Illustration software shall provide the capability to fill graphic and text elements with user-defined patterns and line weights.

Traceability:  
Priority 1

3.2.6.25 The Drawing/Illustration software shall provide a mouse-driven tool and key-combination to perform the following actions:

a. fill elements

Traceability:  
Priority 1

b. select areas

Traceability:  
Priority 1

c. draw elements

Traceability:  
Priority 1

d. delete elements

Traceability:  
Priority 1

e. replicate elements

Traceability:  
Priority 1

f. blend elements

Traceability:  
Priority 1

g. zoom

Traceability:  
Priority 1

h. add textual elements

Traceability:  
Priority 1

3.2.6.26 The Drawing/Illustration software shall provide for textual and graphic element mirroring both horizontally and vertically.

Traceability:  
Priority 1

3.2.6.27 The Drawing/Illustration software shall provide for 360-degree rotation of textual and graphic elements at one-degree increments.

Traceability:  
Priority 1

3.2.6.28 The Drawing/Illustration software shall provide the ability to add text with user controls for font, point size, leading, letter spacing, word spacing, kerning, horizontal scaling, justification (alignment), rotation, baseline shift, and color.

Traceability:  
Priority 1

3.2.6.29 The Drawing/Illustration software shall provide the ability to convert text to paths and manipulate as any other path.

Traceability:  
Priority 1

3.2.6.30 The Drawing/Illustration software shall provide the ability to align text to a path.

Traceability:  
Priority 1

3.2.6.31 The Drawing/Illustration software shall provide the ability to define layers for an illustration.

Traceability:  
Priority 1

3.2.6.32 The Drawing/Illustration software shall provide the ability for the user to place any graphic element on any defined layer with controls for positioning of said element to include front, back, and specific position within the specified layer.

Traceability:  
Priority 1

3.2.6.33 The Drawing/Illustration software shall provide the ability for the user to place any text element on any defined layer with controls for positioning of said element to include front, back, and specific position within the specified layer.

Traceability:  
Priority 1

3.2.6.34 The Drawing/Illustration software shall provide the ability to scale and skew elements or groups of elements.

Traceability:  
Priority 1

3.2.6.35 The Drawing/Illustration software shall provide for user definition of colors to include process and PMS colors.

Traceability:  
Priority 1

3.2.6.36 The Drawing/Illustration software shall provide a utility for locking grids or guides in place.

Traceability:  
Priority 1

3.2.6.37 The Drawing/Illustration software shall provide for the toggling of snapping functions.

Traceability:  
Priority 1

3.2.6.38 The Drawing/Illustration software shall provide the ability to toggle between preview of illustrations with full representation of fills, text, colors, and line enhancements or view display of path outlines and text only without fills, color or line enhancements.

Traceability:  
Priority 1

3.2.6.39 The Drawing/Illustration software shall provide for the toggling of rulers, grids, and guides.

Traceability:  
Priority 1

3.2.6.40 The Drawing/Illustration software shall provide for dynamic zooming capability allowing user to marquee select desired area for zoom with automatic resizing of the selected area to the display.

Traceability:  
Priority 1

3.2.6.41 The Drawing/Illustration software shall, through a menu, allow the user to have the ability to zoom from 12.5 percent to 800 percent at user-definable increments and have the ability to "fit in window" the entire illustration.

Traceability:  
Priority 1

3.2.6.42 The Drawing/Illustration software shall provide the capability to produce process color separation output in the primary printing components(Cyan Magenta Yellow K=black - CMYK).

Traceability:  
Priority 1

3.2.6.43 The Drawing/Illustration software shall ensure that the output of Pantone Matching System colors must be user selectable.

Traceability:  
Priority 1

3.2.6.44 The Drawing/Illustration software shall allow for output of one separation for each Pantone Matching System color or conversion of the PMS color to the CMYK equivalent.

Traceability:  
Priority 1

3.2.6.45 The Drawing/Illustration software shall allow for composite printing of images in color, and black-and-white

Traceability:  
Priority 1

3.2.6.46 The Drawing/Illustration software shall provide the ability to output graphics at full size with control strips, crop marks and registration marks.

Traceability:  
Priority 1

3.2.6.47 The Drawing/Illustration software shall provide user selectable screen rulings for halftone output ranging from 50 lpi to 200 lpi.

Traceability:  
Priority 1

3.2.6.48 The Drawing/Illustration software shall provide user selectable screen angles for halftone separation output up to 360-degrees at one-degree increments.

Traceability:  
Priority 1

- 3.2.6.49 The Drawing/Illustration software shall provide trapping functions during output including chokes and spreads to be controlled both automatically and by user definition.  
Traceability:  
Priority 1
- 3.2.6.50 The Drawing/Illustration software shall provide output over print controls at both the element level and ink level.  
Traceability:  
Priority 1
- 3.2.6.51 The Drawing/Illustration software shall support Adobe PostScript Level 2 output to devices ranging from 300 dpi black and white and color printers to 2540 dpi laser image setters.  
Traceability:  
Priority 1
- 3.2.6.52 The Drawing/Illustration software shall provide editing capability to undo at least the most recently performed function.  
Traceability:  
Priority 1
- 3.2.6.53 The Drawing/Illustration software shall provide the ability to cut, copy, paste, and duplicate within a graphic and from one graphic to another.  
Traceability:  
Priority 1
- 3.2.6.54 The Drawing/Illustration software shall provide the ability to move graphic elements or groups of elements with a mouse using the drag and drop technique and by entry of x,y values in a dialog box.  
Traceability:  
Priority 1
- 3.2.6.55 The Drawing/Illustration software shall be capable of specifying point size of text for grepping during display.  
Traceability:  
Priority 1
- 3.2.6.56 The Drawing/Illustration software shall be capable of controlling high- and low-resolution display of imported images.  
Traceability:  
Priority 1
- 3.2.6.57 The Drawing/Illustration software shall be capable of toggling the display of curve and node handles used for manipulation of bezier curves.  
Traceability:  
Priority 1
- 3.2.6.58 The Drawing/Illustration software shall be capable of joining non-touching and broken paths.  
Traceability:  
Priority 1
- 3.2.6.59 The Drawing/Illustration software shall be able to set default graphic element attributes.  
Traceability:  
Priority 1
- 3.2.6.60 The Drawing/Illustration software shall be capable of setting color for guides and grids.  
Traceability:  
Priority 1

3.2.6.61 The Drawing/Illustration software shall be capable of selecting a user-defined distance for cursor key control.

Traceability:  
Priority 1

3.2.6.62 The Drawing/Illustration software shall be capable of selecting a user-defined snap-to distance for all snap functions.

Traceability:  
Priority 1

3.2.6.63 The Drawing/Illustration software shall provide for a multiple level undo and redo function.

Traceability:  
Priority 1